

**Abstract**

A circuit (14) for use in a tire (16) of a vehicle (10) having a tire parameter sensing system (12) includes a battery (60) for supplying electrical energy. The battery (60) has an equivalent series resistance (64) that varies inversely with temperature. The circuit (14) further includes a current control device (90) that is responsive to at least one of an output voltage of the battery and temperature for adjusting a current draw from the battery (60) to insure a predetermined minimum output voltage from the battery (60).